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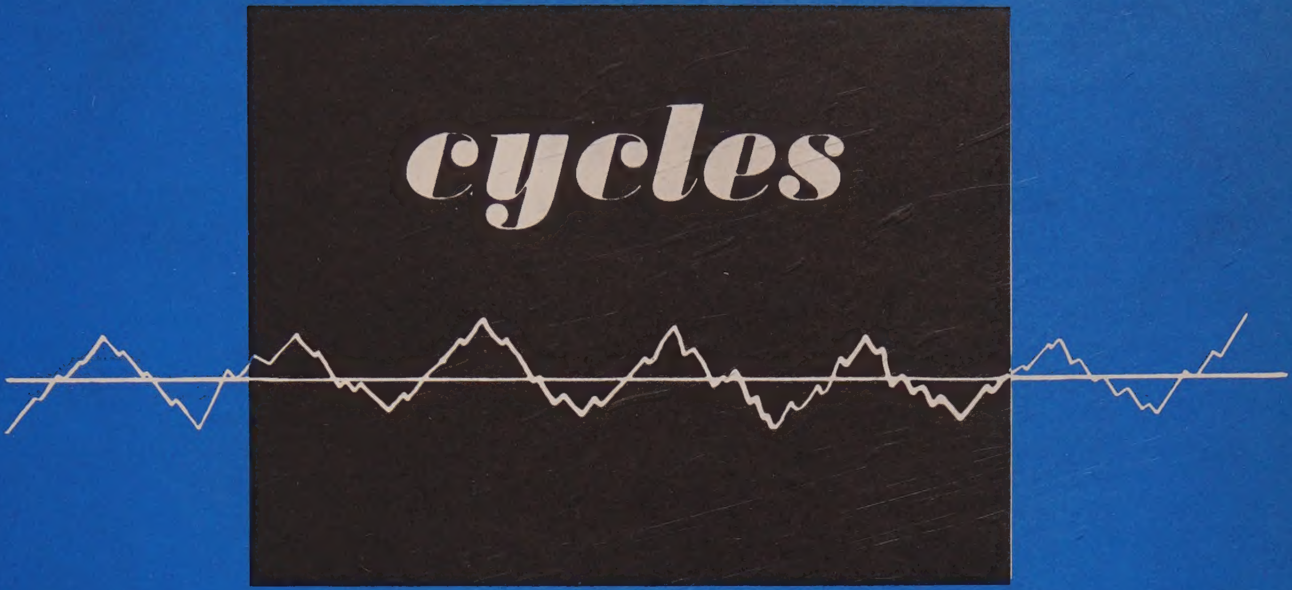

April 1959

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New York, New York

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THE OFFICIAL BULLETIN OF THE FOUNDATION FOR THE STUDY OF CYCLES

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Director's Letter

Dear Member:

Thank You!

I aim to write a personal note of thanks to *every* person who renews. If for any reason you renewed and didn't get such a note, it was a slip up. I'm very sorry. I thank you now.

To persons who send in a contribution as well as a renewal I send a special letter. I number all such persons among my personal friends, be the amount $1 or $1,000.

A year-end check shows that during 1958 we got contributions from more people than I wrote to. Some members got slighted! I don't know how the error occurred. And no particular matter, as long as it doesn't happen again. The point I want to make here is this: If you are one of those persons who sent in a contribution and who didn't get thanked personally, the reason is because, until a few days ago, I didn't know of the gift—except as a statistic.

Contributions are vital to our existence. If it were not for your contributions we would have to fold up about the middle of each year!

Forecasting

A friend of mine was once approached by an astrologer who said, "I can forecast the stock market."

"Show me," said my friend.

"Well," said the astrologer, "the market has been going down for several days now. It will continue to go down until such and such a day (and I think he named the hour, too, but I am not sure). Then it will go up until such and such a day (and hour?). Then it will go down again."

The market did exactly as the man had foretold.

My friend was sufficiently impressed to grub-stake the fellow, but he could not repeat his performance *consistently*, or even well enough to make his foreknowledge practical.

Another example

Here is another similar example. One day a man approached the treasurer of the Texas Company and said, "I can predict the future of any real series of figures."

"Show me," said the treasurer. The treasurer then gave the man part of a series of figures—as a matter of fact they were crude oil prices in Oklahoma up to 1924, if I remember correctly.

Next day the man returned with the figures projected correctly, not only for time of turning points, but for levels as well! He made his projections by knowing the laws of dynamic symmetry, which I have discussed with you from time to time.

The treasurer grub-staked the fellow and, here again, as was true of the astrologer, he often got things right, but he couldn't do it *dependably*.

Marechal's Forecast

I have received a number of letters asking about Marechal's 15-year stock market forecast—the one he made in 1933 and which I published for you in *Cycles* for February on page 40. How did Marechal do it? And has he made another projection?

I don't know *exactly* how he did it, but some years ago he was kind enough to send me his original work sheets so that I have a general idea. The work sheets show all sorts of lines projected forward from past levels and turning points. These lines intersected at various times and levels in the future. (His methods were something like those being explained by General Rutherford in the series of articles of which the fourth appears in this issue). It was clear enough that all the turning points came when these lines intersected. What I couldn't figure out, however, was why some intersections were adjudged significant and others ignored.

Marechal has never attempted another forecast, as far as I know. Personally I think he is very smart. As it is, he holds the record for the best stock market forecast ever made. Why should he jeopardize this record by making another forecast that might not turn out so well?

We Don't Know Enough.

In all the instances given--the astrologer, the dynamic symmetrist, the chartist--the successes recorded are too great to be easily the result of chance. But the fact that the successes cannot be repeated at will shows that the practitioners do not know *enough*. They are, as it were, on the *edge* of truth, not at its center.

The same thing is true of our knowledge of cycles. A knowledge of cycles provides more dependable knowledge of the future than anything else I know about, but cycle knowledge is not infallible. It needs to be used with caution, with restraint, and along with other knowledge. Thus used it is the best guide to what is ahead that is presently available. But *abused,* it too can be disasterous.

Floods

The eastern papers have recently been full of great damage caused in Western Pennsylvania and along the Ohio River Valley by excessively high water. Disaster areas have been proclaimed. Federal aid has been besought (though why in heaven's name the people of New York, Chicago, Denver, Los Angeles, and San Francisco should be forced to pay for storm damage in the great rich states of Ohio and Pennsylvania is hard to see).

The papers say "worst damage since 1936." "Highest since 1913," etc. etc. I imagine that for the most part they are all unconscious of the fact that they are merely corroborating the 23-year cycle in weather in this part of the world (1959 - 23 = 1936, 1936 - 23 = 1913). This cycle has been fully reported upon by Doctor Abbot, a member of our committee. Every other wave tends to be higher and more precise.

Professor Mosely of Ohio found that the best cycle of all was just a little short of four 23-year cycles, or 90.2-years. While he was alive he made consistently remarkable flood forecasts of the Allegheny and Ohio River valleys by finding out what the weather was 90.2 years ago and saying that this is what would happen at the appropriate time in the future.

I do not know why weather in these areas tends to repeat at 90.2-year intervals, but it does, for as far back as there are records (several hundred years, if we piece out the paper records with those provided by tree rings and other data). However, I suspect that the 90.2-year repetition of weather is due to the interplay of cycles which have lengths that are simple fractions of 90.2 years, or almost simple fractions of this base length.

A professor of New York University back from a trip to the Orient once told me that the Jesuits at Manila made marvelous weather forecasts by this method. That is, they knew what the weather used to be and they knew the interval at which it repeated (at Manila). My professor friend thought that this interval was between 300 and 400 years, but he was not sure. If any of you who read these comments have more detailed information, I would be very glad to have it.

Wouldn't it be fun if stock market figures behaved the same way? Maybe they do, if only our records went back far enough for us to know!

Ever cordially yours,

Edward R. Dewey

Director

WHAT'S AHEAD FOR STOCK PRICES?

By Edward R. Dewey

The chart of average annual stock prices from 1831 through 1958 shown on pages 78 and 79 of this issue is of extraordinary interest.

First of all, notice the broad upward sweep of prices from lower left to upper right. This upsweep—taken over the whole span of 127 years—curves neither upward nor downward. It is characterized by a *uniform* rate of growth. It can thus be idealized by a straight line, AB. This line AB is the long-term growth trend. It goes upward at the rate of about 2% a year.

A tendency as definite as this, over as long a period as this, cannot be the result of chance. The odds are that this upward slope will continue. *This is the first point I wish to make.*

Notice now that the peak of 1835 (C) and the peak of 1929 (M) were both about the same percent above the trend AB, and that the lows of 1842 (D), 1859 (F), 1932 (N), and 1942 (P) were also all about the same percentage below the trend AB. This fact does not mean that the current crest *cannot* go above the line CMQS. But if it does, it will break the precedent of 127 years. Similarly, if the next really important low goes below the line DFNPR it will break a precedent of even longer standing. Either eventuality is *possible*. From the purely behavioristic standpoint, however, neither would seem *probable*. *This is my second point.*

The third point I wish to make is that, although one can discern *structure* in a chart of this sort, history never *exactly* repeats itself. However, he who learns nothing from experience is condemned to repeat it.

Note now, if this structure prevails, that the later the next really bad low comes (R) the greater will be its value. If the full decline takes three years, as from 1929 (M) to 1932 (N), or even seven years, as from 1835 (C) to 1942 (D), the low will be considerably lower than if it takes fifteen years, as from 1906 (K) to 1921 (L), or from 1881 (I) to 1906 (J). This is so because the underlying growth trend is constantly upward.

What do cycles tell us about this situation? A great deal.

Obviously the major highs do not come at perfectly regular time intervals. The highs of 1881, 1906, 1929, and 1956 came at about 25 year intervals, but between 1835 and 1881 there were *three* waves instead of the *two* that you would get if a 25-year cycle uniformly dominated stock price behavior. However cycles sometimes behave this way. They get out of step, and then they get back into step again.

A study of 11 stock price cycles in the Standard & Poor's Combined Index, made originally in 1944 and revised slightly in 1956 and '57, was republished for you in April of 1958. It shows a peak in the general neighborhood of 1956. The peak came in 1956 and *in the annual averages*, has not yet been exceeded. In other words, such cycles as we know about are downward at the present time. If we add to the synthesis the 17 3/4-year cycle discussed last month we have another important cycle now on the downside.

This month's round-up reviews the combination of 11 cycles.

Let me discuss the trend (AB).

There is no God-given reason why the trend must be a straight line. It is drawn as a straight line because a straight line most neatly epitomizes stock price behavior from 1831 to date. If we drew a trend line that was either concave downward, or concave upward, it would fail to summarize what has actually occurred as well as the line we have drawn.

The actual values of the trend, by decades from 1830 to the year 2000, are shown in Table 1. The trend values by years, 1950 to 1979 are shown in Table 2. (See pages 78 and 79.)

In the past, the major highs have been about double the trend values, the major lows about half the trend value. The exact values follow:

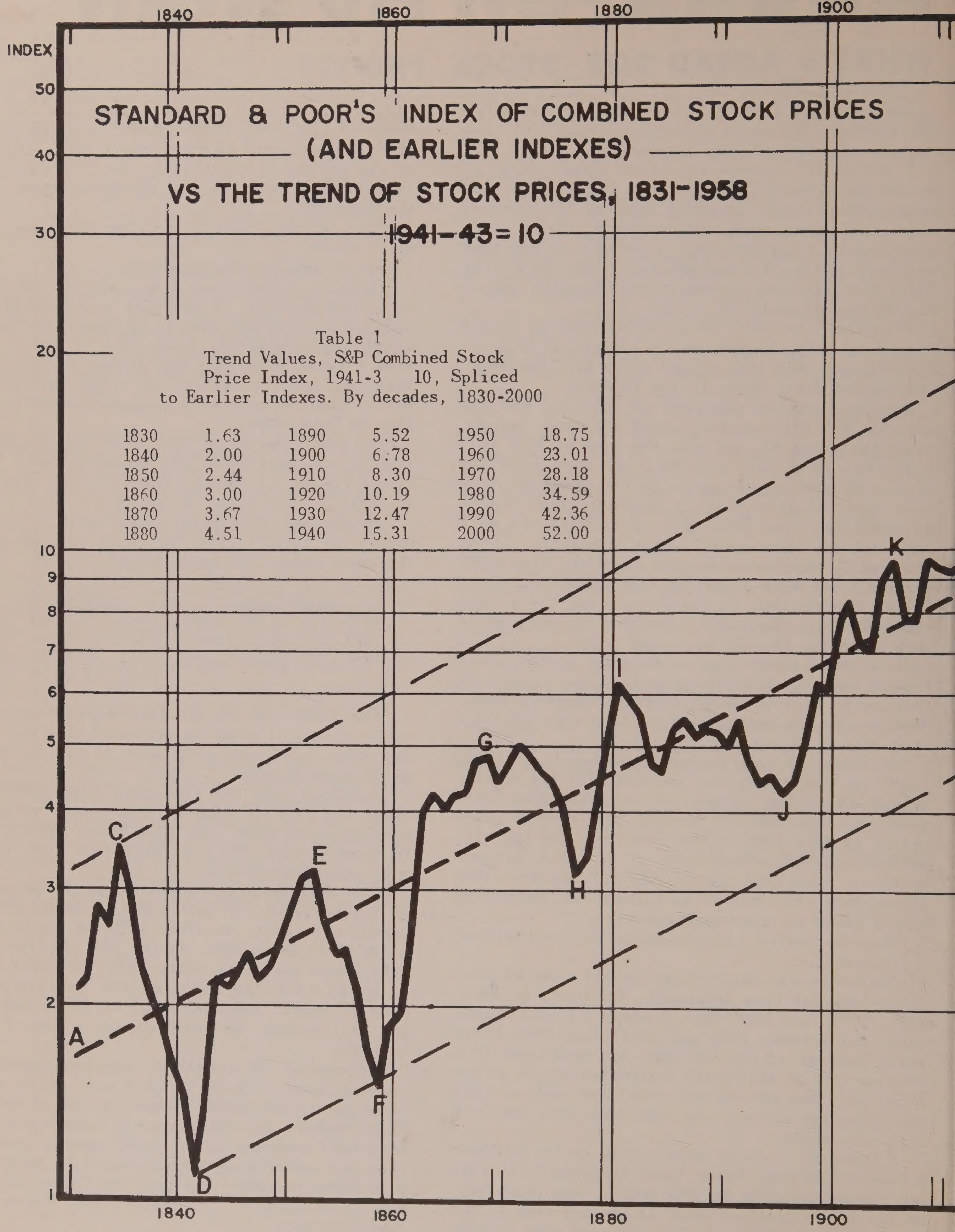
Major Highs	Major Lows
1835, 194.5% of trend	1842, 52.4% of trend
1929, 212.8% of trend	1859, 51.1% of trend
1956, 220.3% of trend	1932, 53.3% of trend
	1942, 54.4% of trend

For those who do not follow this particular index closely it might be mentioned that its values for 1956, 1957, and 1958 were 46.62, 44.38, and 46.24 respectively.

Assuming that the structure suggested by the chart has significance and continues, we may expect the next *major* low to be about 55% of trend. Of course there are also important lows that do not reach these levels.

The real decline cannot begin prior to 1959 at the earliest. If then the *full* decline should take three years, as after 1929, we could expect a low of 12.89 in 1961. If the *full* decline should take seven years, as after 1835, we could expect a low of 14.01 in 1965. If the decline should take 15 years, as after 1881 or 1906, and reach its full extent, we could expect a low of 16.49 in 1973.

Of course the length of the decline—if one comes—is not likely to be 3 or 7 or 15 or any other particular number dredged up out of the past. These numbers are chosen merely because they have been real numbers in the past, and to emphasize that the underlying growth trend is working in your favor in such a way that the longer the major low is postponed, the higher the value it is likely to have.



STANDARD & POOR'S INDEX OF COMBINED STOCK PRICES
(AND EARLIER INDEXES)
VS THE TREND OF STOCK PRICES, 1831-1958
1941-43=10

Table 1
Trend Values, S&P Combined Stock
Price Index, 1941-3   10, Spliced
to Earlier Indexes. By decades, 1830-2000

1830	1.63	1890	5.52	1950	18.75
1840	2.00	1900	6.78	1960	23.01
1850	2.44	1910	8.30	1970	28.18
1860	3.00	1920	10.19	1980	34.59
1870	3.67	1930	12.47	1990	42.36
1880	4.51	1940	15.31	2000	52.00

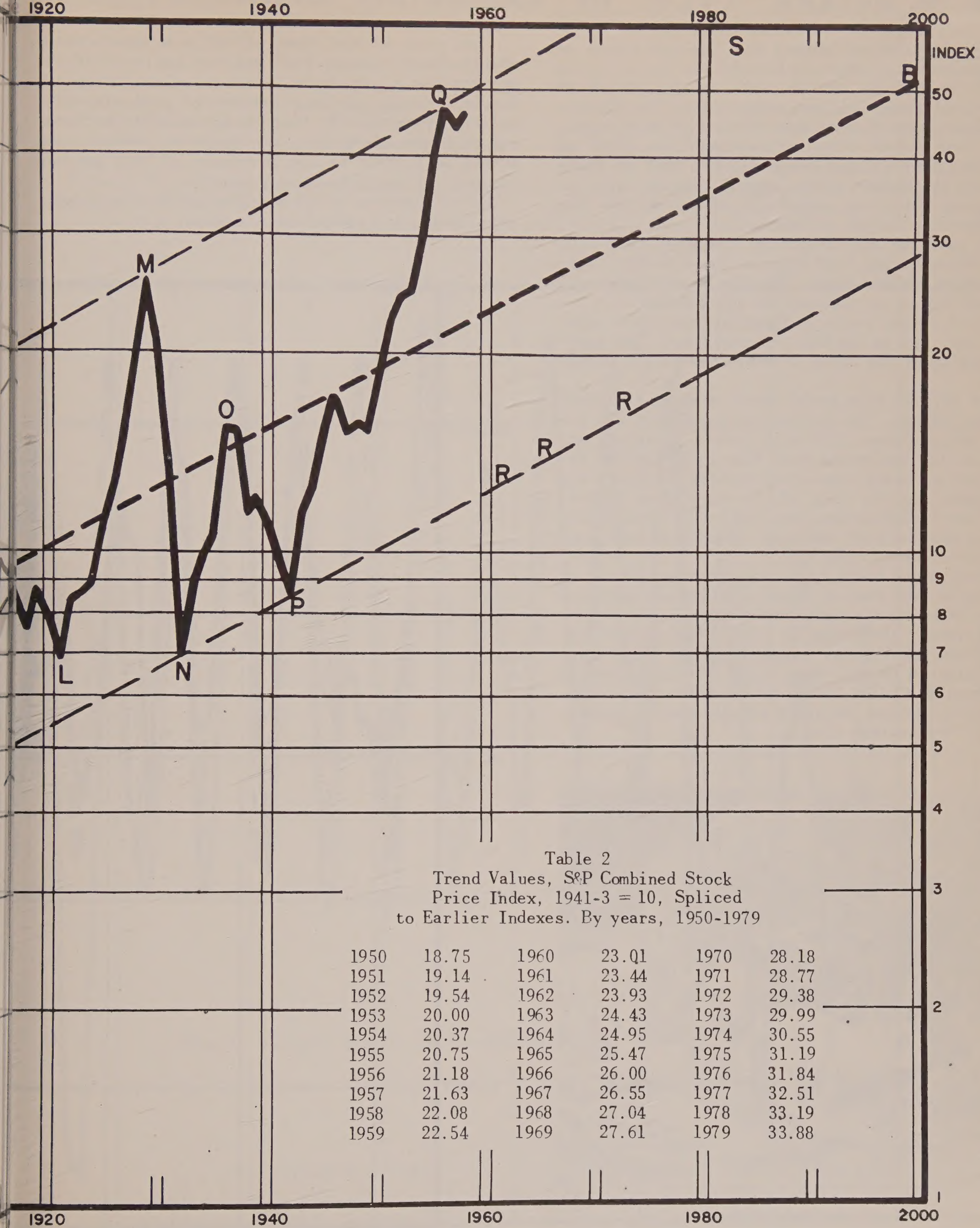


Table 2
Trend Values, S&P Combined Stock
Price Index, 1941-3 = 10, Spliced
to Earlier Indexes. By years, 1950-1979

1950	18.75	1960	23.01	1970	28.18
1951	19.14	1961	23.44	1971	28.77
1952	19.54	1962	23.93	1972	29.38
1953	20.00	1963	24.43	1973	29.99
1954	20.37	1964	24.95	1974	30.55
1955	20.75	1965	25.47	1975	31.19
1956	21.18	1966	26.00	1976	31.84
1957	21.63	1967	26.55	1977	32.51
1958	22.08	1968	27.04	1978	33.19
1959	22.54	1969	27.61	1979	33.88

THE 9.6-YEAR CYCLE IN CANADIAN LYNX

By G. Shirk

The chart below depicts the 9.6-year cycle in the abundance of lynx in Canada.

The solid line on the chart is the record of the actual number of lynx pelts taken. The figures are in an index form to make the series continuous. This long record (the figures begin in 1735) is compiled from old fur trade figures such as those kept by the Hudson's Bay Company. Recent figures, which are about two years being compiled, are from the Dominion Bureau of Statistics.

In case you are wondering, the lynx is a type of wildcat having long legs, a short stubby tail, and often tufted ears. The bay lynx of eastern United States is also called the bobcat.

The 9.6-year cycle in Canadian lynx is a dominant one, and is visible by inspection. The average timing of the cycle is indicated by the broken line.

Not only is this cycle easily seen in the chart of the figures, but it has continued over the entire period since 1735 with little interruption. Some of the variation that does exist can be explained as being caused by random factors. For instance, at the time of the scheduled 1790-91 peak the Indian tribes were suffering from devastating pandemics of smallpox. This havoc destroyed the fur trade at that time.

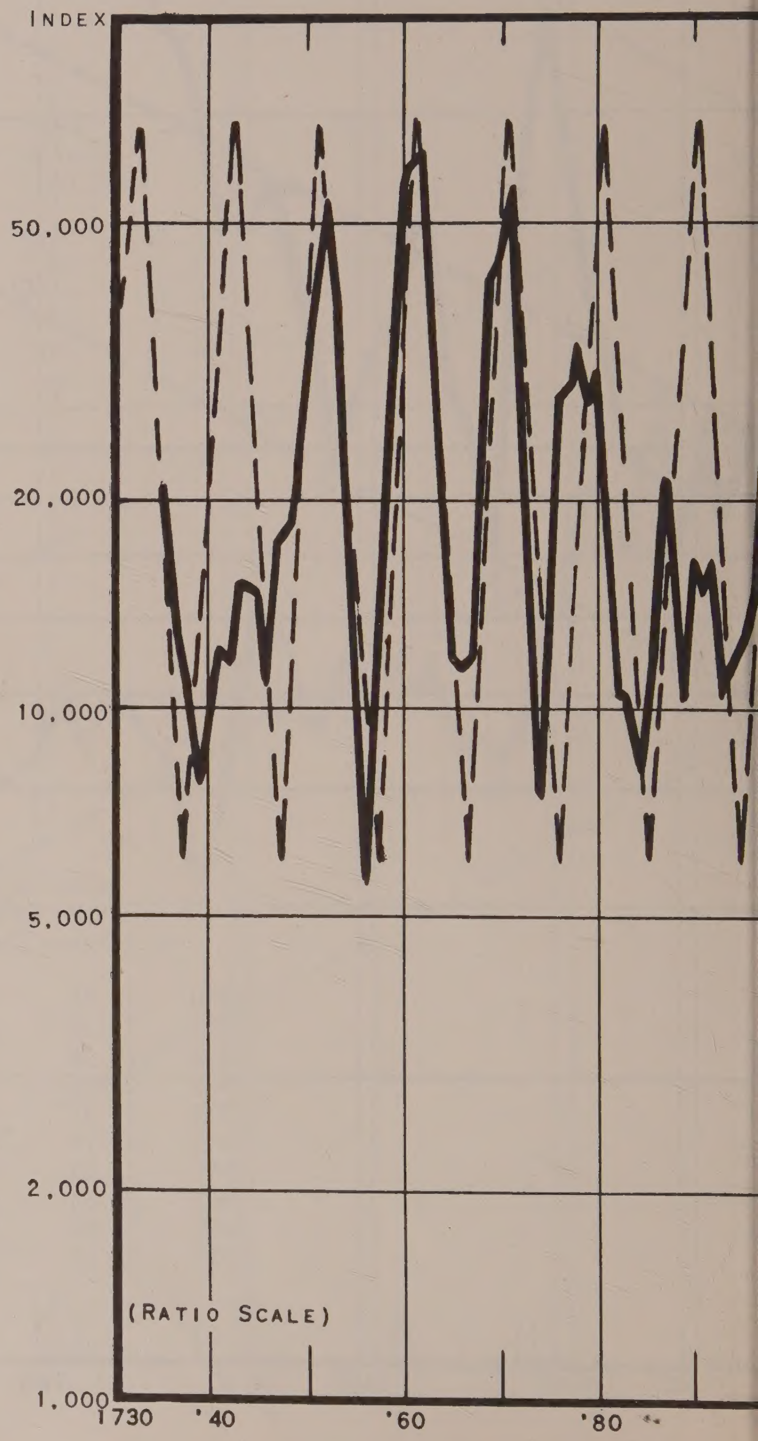
Altogether there have been 23 repetitions of the cycle, and five of these repetitions have come since 1904 when the cycle was first discovered.

Obviously the cycle is continuing to operate. The three additional yearly figures which have been plotted on the chart since the last time it appeared in *Cycles* only confirm this conclusion. The 1954-55 crest occurred almost exactly according to the average timing.

Lynx and Hare—Canada

Too much of the time we are concerned with merely demonstrating that a given cycle could be present. In a case like this one, where there is little question of the existence of a regular repetitive pattern, the problem immediately becomes one of cause. Just why this cycle is present, or should be present in the abundance of lynx is the fundamental question, in my opinion.

Unfortunately, it is at this point that knowledge ends, and speculation begins.



RESEARCH BY STAFF

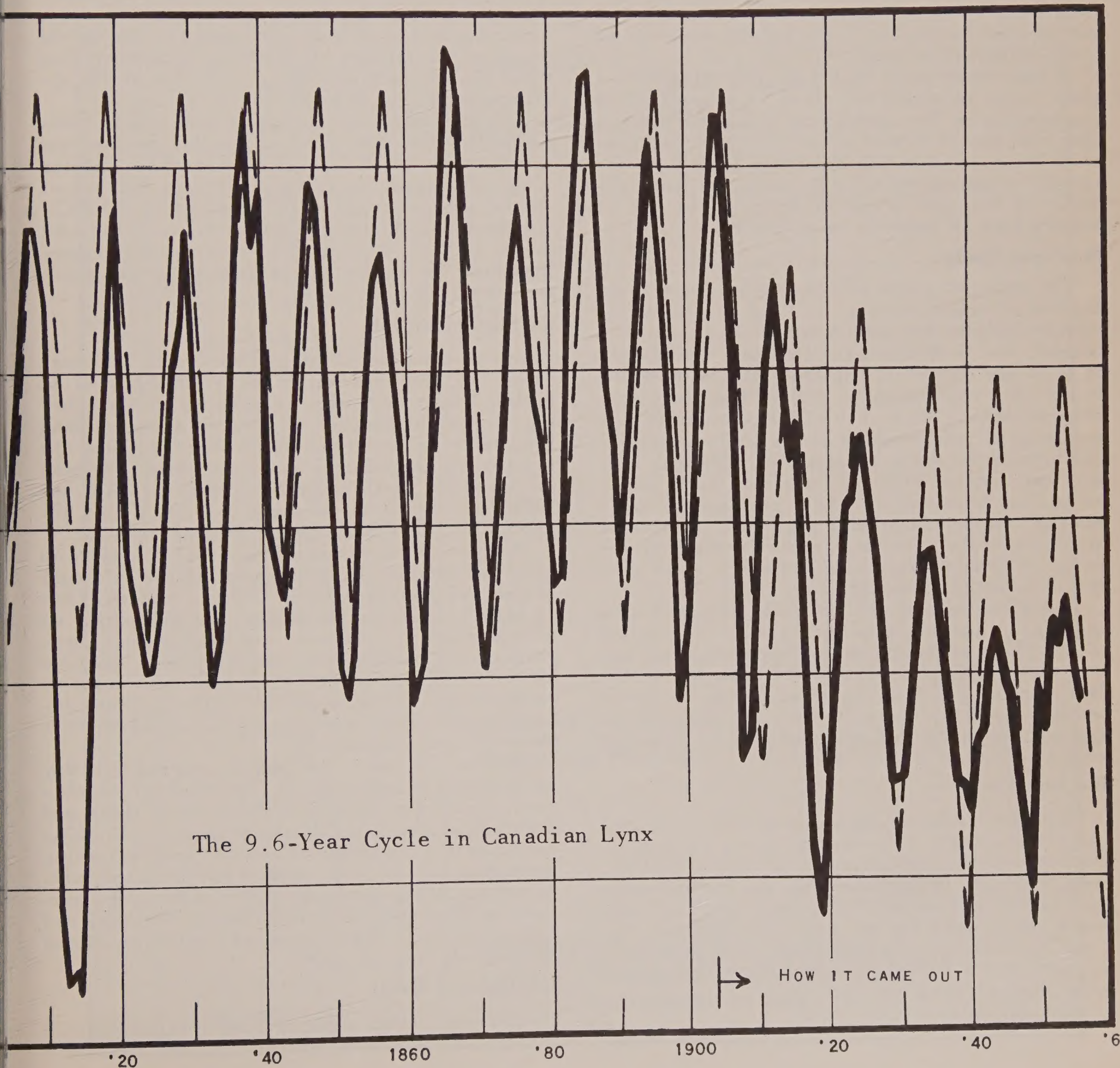
The 9.6-year cycle in the abundance of lynx could be the result of the 9.6-year cycle in the abundance of the varying hare. (The varying hare is a staple item in the lynx diet.)

But that explanation only raises the question of why the varying hare should have a 9.6-year cycle. In fact, any direct environmental influence which appears to cause the 9.6-year cycle in the abundance of lynx needs in its turn to be explained.

Indeed, this cycle has been found in things which have no connection with lynx. For instance, there is a 9.6-year cycle in the cinch bug in Illinois, and the salmon in the St. Lawrence River. A common stimulus, such as the weather, could cause many unrelated events to occur simultaneously. However, there would still be lacking the explanation of why the weather should have a 9.6-year cycle, if it has.

A discussion of this sort runs in circles, and answers nothing. The fundamental problem remains the fundamental problem.

But at least we can postulate with conviction that the abundance of lynx in Canada fluctuates in a repetitive pattern which is, on the average, 9.6-years long.



Research by Others

THE CYCLE OF THE WORLD'S GREAT RELIGIONS

By Arthus Louis Joquel II

The influence of religion upon history is one which must never be overlooked. Early Christianity had a marked effect on the course of the Roman Empire; militant Islam conquered the Mediterranean and became the center of culture while Europe was in its medieval period. Signs in the sky have changed the course of battles, and men have fought and died—or refused to fight and die—because of their religious beliefs.

A long-range study of the world's great religions seems to show that there is a predictable periodicity in the rise of religious movements; that what may be termed a "religious cycle" presents the rise of strong spiritual leaders at intervals of approximately 625 years. At least six peaks of this cycle may be seen in the era of history that is known to us at present.

The First Cycle

The earliest point of this cycle has a large degress of uncertainty in it, and yet is sufficiently definite for consideration. It begins with two men; one is Akhnaton (or Ihnaton), the pharoah of Egypt who because of his inner vision attempted to set up a monotheism to replace the older worship of Ammon. While his efforts to bring his people to an understanding of his ideal of spiritual principles was a failure, and Akhnaton himself was lost in obscurity for almost 3,000 years, he has now been called "the first man who truly saw God." While the precise period of his life is still uncertain, the dates given in the *Encyclopedia of World History*—1375-1358 B.C.—are generally accepted as satisfactory.

The dates of the life of Moses are much more indefinite, but the same work places the leading of the clans of Joseph out of Egypt sometime between 1225-1200 B.C., which would place his birthdate at about 1260 B.C. And if an average is struck between these two early leaders, it comes out to approximately 1275 B.C., which is closely in accord with a beginning for this cycle.

The Next Cycle

The next crest would occur at 625 B.C.; and centering on this year are the lives of four of the most eminent pre-Christian religious leaders. First, perhaps, is Zoroaster, who was traditionally born in Media about 660 B.C., and lived for sixty years. While pointing out that some scholars believe that this date is too recent, John B. Noss in his book *Man's Religions* says that, "Recent archaeological findings . . . tend to support the traditional date."

In China, the founders of the two great faiths of that country lived so that their lives overlapped. Lao-Tze was born in 604 B.C. and vanished from the midst of men at about 520 B.C., riding out beyond the Great Wall on his green ox and leaving behind him only the 5,000 characters of script which make up the Tao-Teh-King. Confucius, the Master Kung, was born in 551 B.C. His life span enabled him to meet the aging Lao-Tze on the steps of the library at Chou—an encounter from which the moralist retired in confusion at the abstractions of the elderly mystic.

Gautama Buddha and Confucius were nearly exact contemporaries; the saint of the Indian road was probably born 563 B.C., and died 483 B.C. Together with such lesser religious lights as Wittoba of the Telingonese, supposedly crucified in 552 B.C., and Iao of Nepal, who was put to death in the same manner in 622 B.C., they form a religious outpouring which for extent and intensity has not since been equalled.

The Christian Cycle

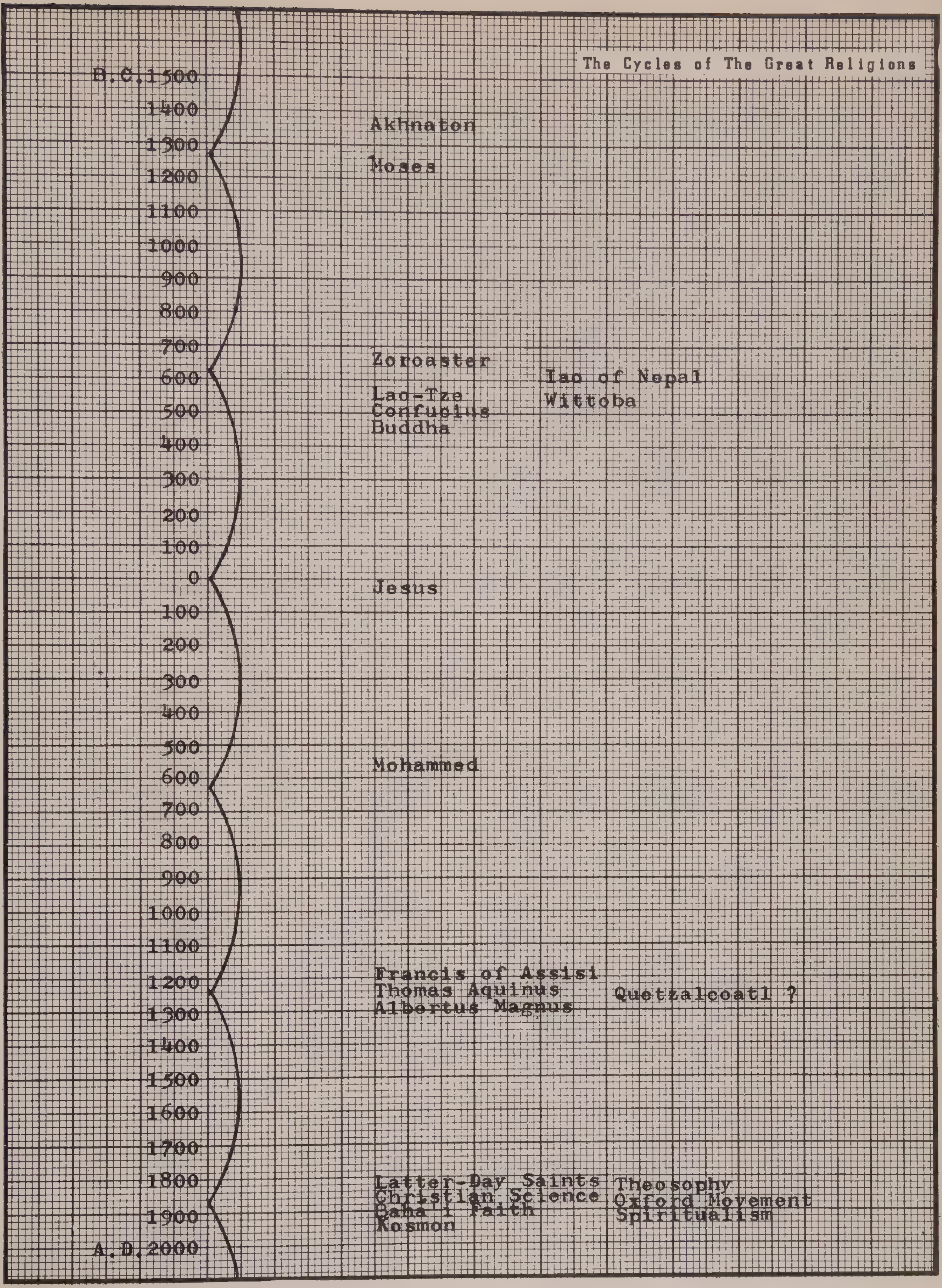
At the commencement of another cycle, 625 years later, in the year which is now designated as either 4 B.C. or 6 A.D.—depending upon whether the account of Matthew or Luke is accepted—was born Jesus of Nazareth, upon whose teachings the religion of Christianity was to be based. The next cycle brought forth Mohammed, prophet of Islam and author of the Koran, whose life from 571 to 632 precisely fulfills the period of the cycle.

Another 625 years brings us to 1250, when no major new religion is forthcoming, unless it should be that of Quetzalcoatl in Central America; this is highly uncertain because of the difficulty of dating events in this area, and also because Quetzalcoatl, like Zoroaster, may have been one of a line of religious leaders which have been fused or confused into a single person. Further investigation would certainly be needed to establish this date with any certainty.

However, it seems that there occurred what may be termed a re-emphasis on Christianity at this time, which was brought about by the lives and writings of two men. Thomas Aquinas (1225-1274) and Francis of Assisi (1182?-1226) made a lasting impression on the faith; and it may be proper also to mention Albertus Magnus (1206?-1280), who made several important contributions to theology and had the unusual distinction of outliving Thomas Aquinas, who was his pupil.

The Current Cycle

The most recent peak of this religious cycle arrives at 1875, and clustered around this date



The Cycles of The Great Religions

are the foundings of a great many contemporary faiths or offshoots of older beliefs. Those which developed at or about the middle of the nineteenth century and had as their fundamental basis the Christian religion included The Church of Jesus Christ of the Latter-Day Saints—commonly referred to as the Mormans from the title of their volume. The Book of Mormon—founded by Joseph Smith (1805-1844); Christian Science, begun by Mary Baker Eddy (1821-1910); and the Oxford Movement, which began in 1833.

Among more exotic beliefs which began during this time, and which still have a sizable following, are the Spiritualists, the Theosophical Movement, and a number of Rosicrucian groups, as well as the Kosmon Faith, which claims to possess the only sacred book ever automatically dictated on a typewriter. From Persia in the mid-19th century came the Baha'l Faith, which now boasts an architecturally unique temple in Illinois, and has perhaps more members in the United States than in any other country.

If we wish to draw a parallel between the United States and ancient Rome at the time the latter became an empire, it will be seen that regarding the religious atmosphere both cultures possess the same general situation. The Roman Empire began in 31 B.C., and within less than one hundred years the new faith of Christianity was springing up strongly within it, eventually to influence both commoners and Emperor alike. In the United States which is nominally Christian, a number of variant beliefs are growing, less than a hundred years after the time of the first real American imperialist—Theodore Roosevelt.

There has been much discussion among high-placed theologians as to the reasons and validity of the religious revival which has seemed to be occurring within the past few years. But the reason seems to be indicated by the coincidence of an Empire cycle of 400 years, which began 1890-1900, and the 625-year religious cycle which had most of its recent focus in this country.

It will be a matter of considerable interest to see if the present movement begins to show some of the same aspects that were faced by the new faith in ancient Imperial Rome, particularly if there should be a major swing to some belief not now considered to be particularly orthodox.

A most interesting aspect of the 625-year religious cycle is that it cuts across most of the other cycles which have been established. Neither weather cycles, or those which influence the rise and fall of nations, seem to be bound up with it, in my opinion. However, it seems from the evidence presented to be predicated on firm ground, and may assist in solving some of the problems of cycles as they pertain to national existence and the growth and development of certain attitudes in nations both past and present.

SEASONAL INFLUENCES IN PETROLEUM INVENTORIES

BY D. M. HIMMELBLAU

An examination of the U. S. Bureau of Mines data for petroleum stocks for the last twenty years shows pronounced repetitive seasonal fluctuations. It was decided to analyze the data month by month to establish the regular monthly fluctuations. Knowing the seasonal pattern, and combining it with the long range trend of petroleum stocks, can be most useful in predicting future inventory status.

In order to isolate the seasonal fluctuations, insofar as possible, from the main trend and shorter cyclical movements, a twelve month moving average was computed for each of the following categories of petroleum inventory:

(a) Total Daily Average Demand of All Oils
(b) Crude Petroleum Stocks
(c) Refined Petroleum Stocks
(d) Day's Supply of All Oils

All the basic data from 1937 to 1958 were secured from the Bureau of Mines Monthly and Annual Petroleum Statements, with the exception of the data for the years 1942 and 1943 which came from the Minerals Yearbook. Monthly deviations from the 12-month moving average were calculated next. All the deviations for a given month were averaged; the final result represents the expected or normal percentage deviation from the moving average for each month based on the experience of the previous twenty years. This information is plotted in Figures 1, 2, 3, and 4.

To predict petroleum inventories in the future, the current long range trend (as represented by a twelve months moving average) is extended to the desired month and then corrected positively or negatively by means of the normal seasonal deviation. There is a limit, of course, to the reliability of predicting the future course of the main trend, and work is now underway to determine the longer than seasonal cycles in these petroleum inventories.

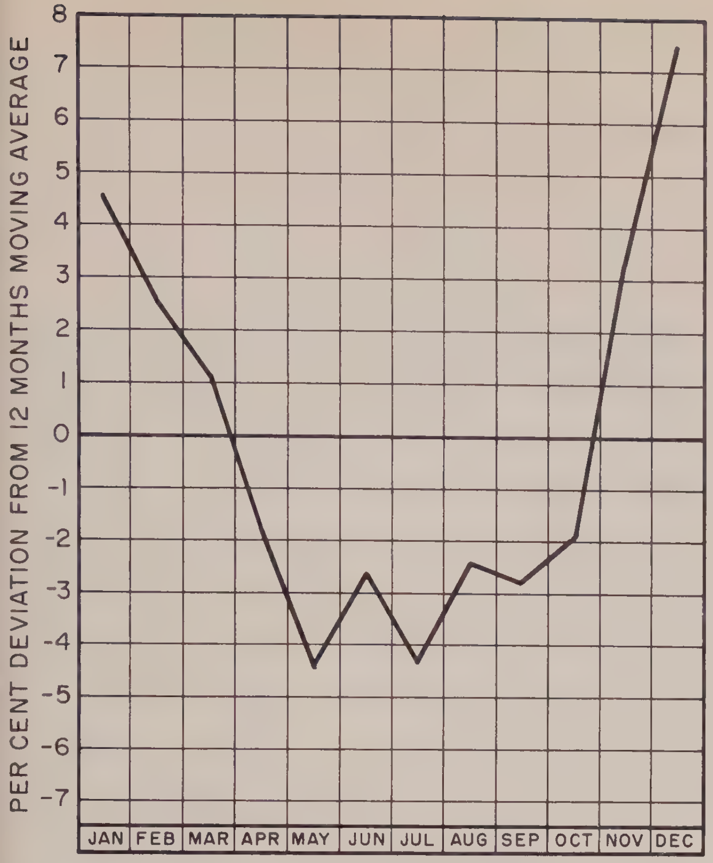


FIGURE 1. TOTAL DAILY AVERAGE DEMAND FOR ALL OILS.

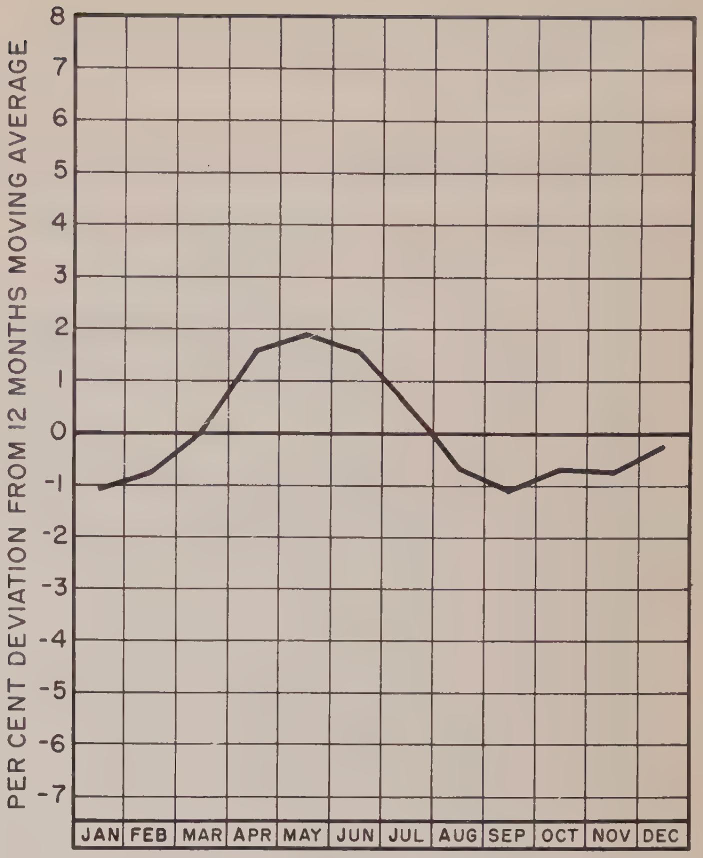


FIGURE 2. CRUDE PETROLEUM STOCKS.

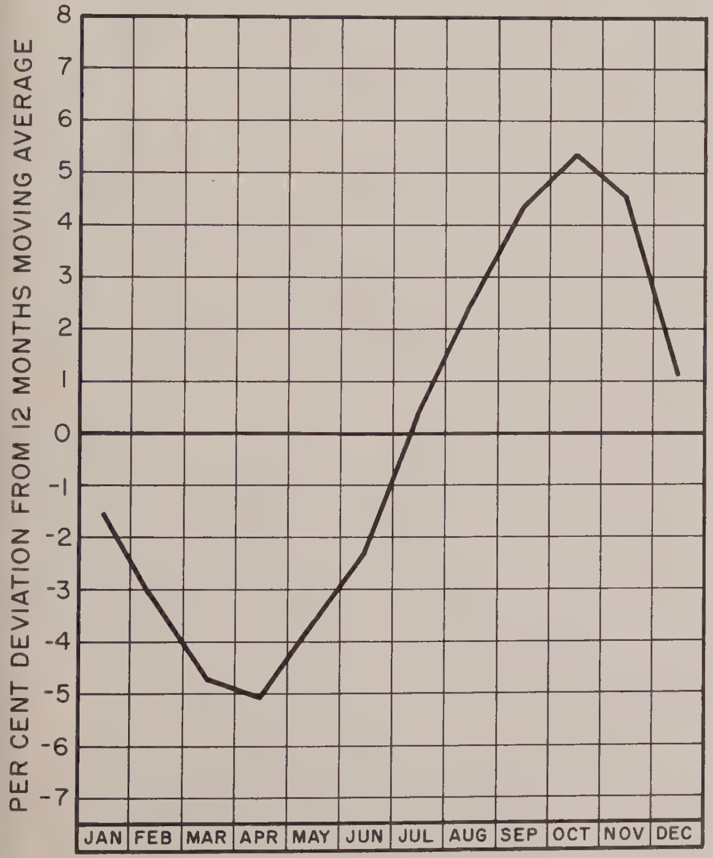


FIGURE 3. REFINED PETROLEUM STOCKS.

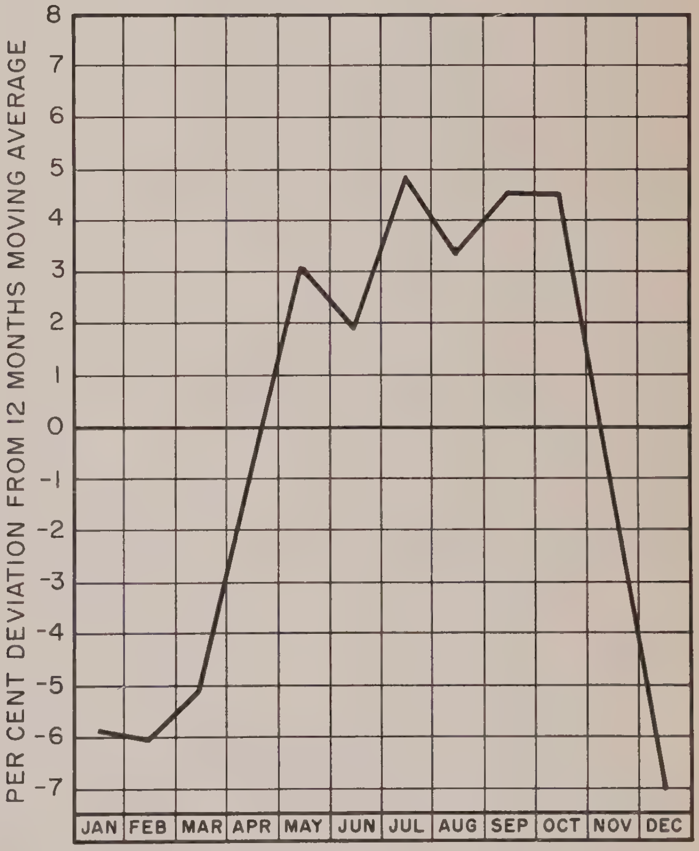


FIGURE 4. DAYS SUPPLY OF ALL OILS.

Technical

ADVENTURES IN FORECASTING

BY H. K. RUTHERFORD

PART IV: THE COMPLETE CYCLE

In the preceding articles under the above heading, general procedures were outlined by which a rhythmic series could be predicted using graphical presentation of the data.

This section is a continuation of Part III which dealt with a single leg of the cycle and discussed the techniques used. It would be difficult to start this work at this point, and it is suggested that Part 4 should be preceded by a rereading of Part III.

TECHNIQUES

Part III introduced K points, K lines and intersects. Two additional items must be added to the list of techniques at this point.

Cycle-trend Lines: The cycle-trend line is a line drawn across the turning points of the cycle. That is, the line is drawn across successive tops or successive bottoms.

Parallels: Parallels can be drawn to the basic trend lines, and through the various K points. The parallels are numbered according to the corresponding K points.

KO Points: A reversal in a curve establishes a new KO point and the immediately preceding leg of the cycle can then be included in the analysis with the noting of the additional K levels.

We now proceed to the complete cycle for application of the procedures in forecasting.

THE CYCLE

Upon completion of a cycle in the curve, more comprehensive data than before become available and we have the forest to study instead of the trees only. Predictions based on the cycle are convenient and generally adequate for our purposes but have the disadvantage that results in extremely volatile series such as commodity prices may be so far ahead that resort to forecasts based on one of its legs may be necessary if one wishes to follow situations closely. As previously stated, however, the detail will always interpret and agree with the action of the cycle and how this detail may be obtained without recourse to single-move prediction will be outlined later.

TIMING

For timing of coming events, we now have intersects on the cycle-trend line (across ends whether tops or bottoms) from K points. The K points are spotted above and below the interior climax turn and computed on the preceding leg ordinarily. With equal validity, intersects may be spotted on the *parallel* to the cycle trend drawn through the interior climax-level and correspondingly spotted above and below the end of the cycle if developments make this more convenient for use. To distinguish the intersects, they will be labelled simply K1, K3 inside or outside as the case may be.

OBJECTIVES

For objective limits, we now have parallels to the cycle-trend drawn through various Ks and use the K, whether outside or inside, to distinguish them in the discussion, e.g. K1 outside parallel. While the K levels themselves are valid objectives, the parallels are convenient, more conspicuous, often somewhat more definitive and therefore are used in preference.

As the curve develops after the end of the cycle, the intersects will date successive fractional time-periods where indications of weakness or strength, as measured by the level reached, will be significant. As usual, dates are not so important to prediction as are levels *but some intersect will always time the climax* and the latter may be so conspicuous as to merit only casual observation. Since no invariable relationship between dates and level is determinable, the two are to be weighted separately and results compared.

Chief among the factors determining strength or weakness in the current situation are whether the expected 2 or 2 1/2 steps in process have been completed, whether an extreme time or objective limit has been reached and, belatedly, the indication of the criterion. If no evidence of particular strength or weakness is observable, the picture is likely to continue non-committal at least temporarily.

SUMMARY

The following are observations on what may be considered probabilities as well as others here included to crystallize much experience in practical application of the procedures.

1. At the cycle-trend intersect from KO (here the interior climax), expect the curve to be at the parallel through KO. And so on for other K intersects and corresponding parallels.
2. Normally do not expect the K2 level to be reached before the K2 intersect date.
3. When any K line, cycle-trend or parallel, or a K level has been exceeded, it will soon be approached again by the curve and can be expected to set the limit to the approach. Should the approach exceed the expected level materially, a re-appraisal of the situation is indicated.

4. In analyzing a cycle for prediction, many intersects and parallels will be available, of which those based on the cycle-trend from K1 or K2 are usually most indicative, both outside.

If one is interested in following current developments closely, still others may be used to advantage. Since every rhythm in the group combining to create the curve will repeat, earlier reversals will have a KO rating and may be used for spotting of such additional intersects and drawing of parallels for objectives. The curve will always recognize these repetitions by the appropriate action at the corresponding date and this procedure will often serve to clear up a current situation otherwise obscure.

Where more than one intersect appears as of the same date, the significance of that date is increased, hence a multiplicity of intersects may be helpful instead of confusing.

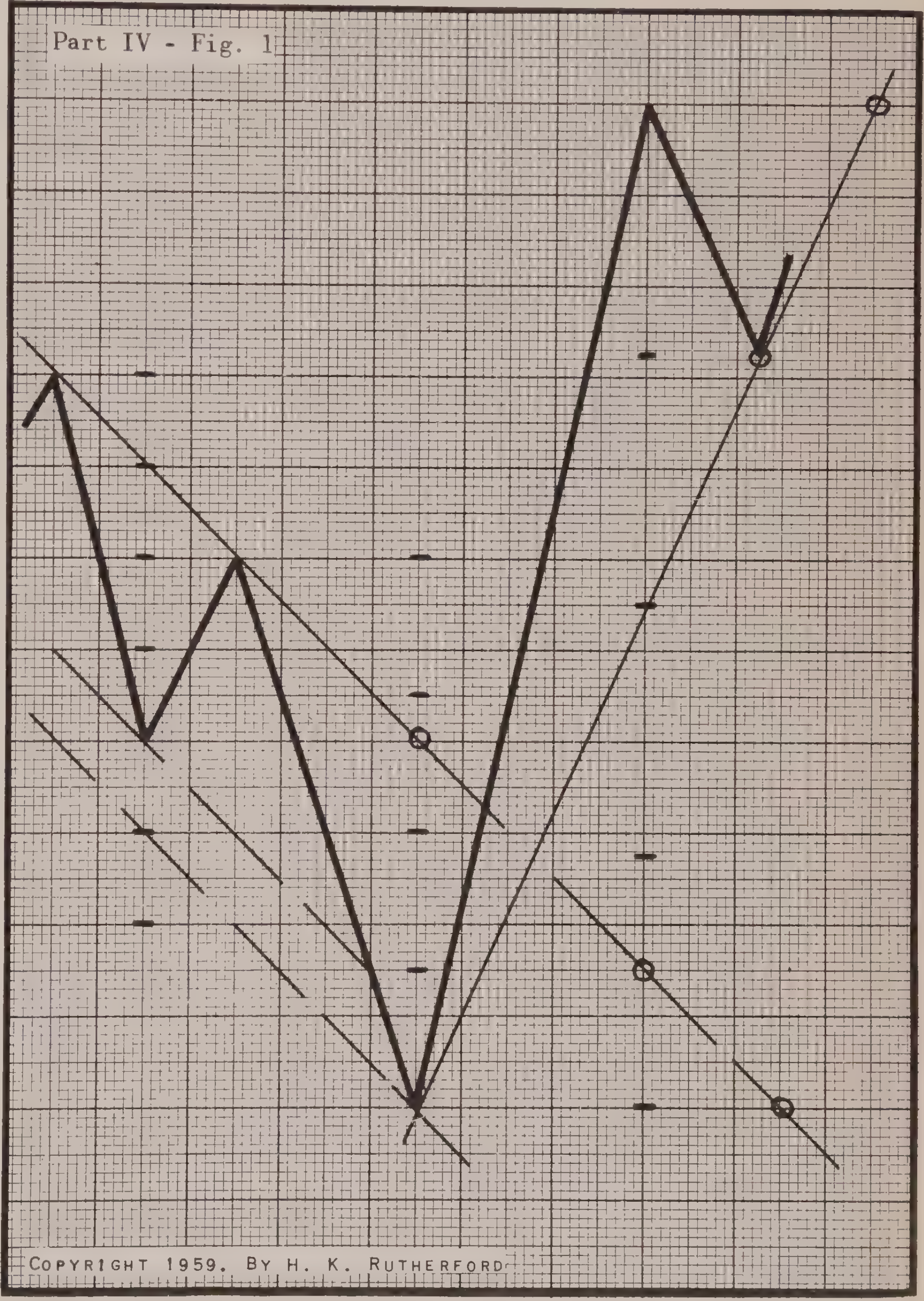
5. It has been stated that when one K parallel has been passed, the next beyond becomes the objective and so on until a climax has definitely been made. An important corollary to observations made in Paragraph 4 and of much practical value is that parallels may be drawn through reversal months or years back on the chart as far as may be necessary to meet the current requirements for objectives and these parallels will be valid for repetitions of the cycles so projected. Thus a parallel through an important turn just *prior* to the origin of the cycle being forecast often becomes the first objective and is most conveniently obtained if one wishes to avoid detail. And so on for others if the first is exceeded.

One will often be surprised at the validity of the above procedure for the longer view. But when he has used 2 or 2 1/2 such parallels in succession, the usual limit has been reached and a climax of corresponding importance is being made. For short periods such a climax may be only a step in a long move, of course, and should be appraised accordingly.

6. Where duplicate tops or bottoms appear in the curve, both may be used for drawing cycle-trends, obtaining intersects and parallels and both will be useful. The one giving the latest forecast, however, will emphasize the lesser rhythm which caused the duplication and will be more indicative than the other in predicting the final reversal of the cycle.

7. As has been shown, it cannot be predicted that a given intersect will invariably find the curve at a standard level. Success in forecasting depends upon ability to evaluate and relate the information given by intersect and level at the current situation. The chief factors involved in such appraisal have been listed above and need not be repeated. Experience in the use of such as best meet ones needs is essential.

8. As a supplementary practical suggestion, attention may well be given to 6 and 12 time-spaces on one's chart. Obviously, in monthly graphs of



security prices, this is related to short and long term tax regulations, but applies to weekly and even daily charts as well, and has been found quite useful in maintaining perspective in this complicated problem.

Taking an important reversal as 0, the 6 will normally be opposite and the 12 similar. But abnormality is frequent and the reality may be just opposite to the above. If so, especially in volatile series such as commodity prices, the implications are important for prediction but will not be elaborated upon. And here again, we find half-periods intervening.

Application to Ratio Charts

The procedures outlined are applicable without change to graphs with other than arithmetic scales, e.g. ratio, square root, etc. K points are set off with dividers, disregarding the scale. If relative performance curves are also available, they may be predicted in the usual manner and often provide more definitive forecasts than the corresponding price curve, since many minor rhythms are averaged out in their preparation.

General Conclusions

Much detail has been included in this discussion to crystallize for the record observations made as the result of considerable study of this hobby of the writer. No sane reader will attempt to apply all of the suggested procedures continuously but he will find certain of them useful whatever the situation may be in the realistic series he may be reviewing. Hence, depending upon his particular interest and the time he can devote to the subject, he can find much of value in the suggestions.

For most purposes, adequate and satisfactory forecasts with minimum of labor can be obtained from the cycle. Should one's interest be in following a very volatile series closely, however, resort to predictions based on the single move established by one leg of the cycle may be needed to supply the detail but the detail analyses will always interpret and forecast the action in prospect for the more important rhythms of which they are parts.

Intersects, varying widely in importance with respect to the action in the curve at the time, mark dates when one may well stop, look and listen. The re-appraisal here involves indications previously mentioned, of which the level reached appears most significant. For the cycle, parallels to the cycle-trend through the various K points discussed earlier or the K levels themselves, establish objective limits and success or failure of the curve in reaching the one being approached furnishes information as regards the significance of the intersect date, but, more importantly, discloses strength or weakness in the prospects for the immediate future.

The time-period occupied by the single move or the cycle being used for predictions has no limits—it may be days, months or years according to one's interest—and forecasts will, of course, correspond. And the procedures have been found to be valid, not only for a great variety of economic series, but to others of a physical nature. It may be concluded, therefore, they are applicable to any series resulting from the combined effect of rhythmic components.

Letters to the Editor

CONTROLLED ECONOMY

Dear Mr. Dewey:

1. As an avid reader of "Cycles", much of which we find challenging and thought provoking, would you give us your thoughts on the following:

2. In evaluating and projecting business and real estate cycles, based on the rhythmic cycles of the past, how can we evaluate the effect of the change from a free economy to a controlled economy?

3. Certainly, over the long past, the rhythmic cycles were influenced by the farmer having to sell his crop at harvest time at the existing market price; the workmen to accept a lesser wage when work was scarce; the landlord to reduce his rent in hard-times; the speculator to dump his stocks bought on short margins; and, the foreign country to buy less from us when its economy was declining.

4. Today, the effect of these influences in the economy is negated by such modern day panaceas as-controlled security from the cradle to the grave; Welfare Assistance on a gigantic scale; Farm Crops Support and Commodity Loans; Workmens Unemployment Insurance and Compensation; the tremendous increase in home ownership with 30 to 40 year mortgage amortization-F.H.A. Insured; SEC regulation of stock speculation; Lend Lease and Foreign Aid; and scores of other economic controls administered by the Federal Government, plus Cold War and ever increasing Defense Expenditures.

5. How can we expect the same rhythmic cycles of the past to continue when such fundamental economic influences have been so radically changed? Or is there some great force, as yet undefined, that influences nature's bounty and man's spirit that is so all prevailing that it cannot be changed by mere man?

6. It would be interesting, for instance, to observe a comparable long term economic cycle chart of the Russian economy. Has it, too, produced a rhythmic cycle uninfluenced by the imposition of maximum controls?

Cordially yours,
Wallace C. Walker

New Orleans, La.

In Reply

Dear Mr. Walker:

I have taken the liberty of numbering your paragraphs. I have then numbered my comments to correspond.

2. We do not have a completely controlled economy—yet! In our partially controlled economy the only way I know of to evaluate the effect of the control is to see how the cycles operate during the period of control in comparison with the way they operated prior to the period of control.

In this connection it is in point to note that under conditions of control some cycles may be affected more than others. For example, during World War II the longer cycles were largely obliterated, unless they just happened to coincide with the forced draft of the war, but in many instances the shorter cycles continued unaffected. In other instances the cycles continued, but with greatly decreased amplitude.

In evaluating the effect of the control you must compare *each cycle* during the period of control with its behavior prior to the control.

4. I would emend this paragraph by inserting the word "partly" in the second line before the word "negated."

5. I think the truth lies somewhere in between the two extremes you suggest. I agree that it is not *reasonable* to expect the cycles of the past to continue during radical changes of fundamental economic conditions—but sometimes they *do*! Where, for example, can you find greater economic changes than in England between 1277 and 1918? (Later figures not available here.) Remember that the 1200's were long before the industrial revolution, long before modern banking, long before modern technology. Yet the 16 2/3-year cycle in wrought iron prices persists through all these changes.

There *are*, in my opinion, great all pervading forces, the nature and laws of which are not yet defined, that *do* influence "nature's bounty and man's spirit" (I've never heard a happier phrase!). I do not believe that these *forces* can be changed by mere man. However, I do believe that the *effects* of these forces can be partially or even wholly negated, if we know enough and try hard enough.

6. It would be fascinating to study a long term chart of the Russian economy to see if there were rhythmic cycles. There probably would be. The workers might be more productive at certain times than at others. Executive decisions might come in cycles, too. And finally there might be a certain amount of rhythmic readjustment. Suddenly too much of something. Then an over-correction. Then too little. Then too much. And so on indefinitely. All of this however is pure speculation. I have never seen any consecutive Russian figures. If you know where I can get hold of any, please let me know.

Cordially yours,
Edward R. Dewey

PRO AND CON

I think your style is unusually lucid.

To me it's the largest Chinese puzzle I ever read.

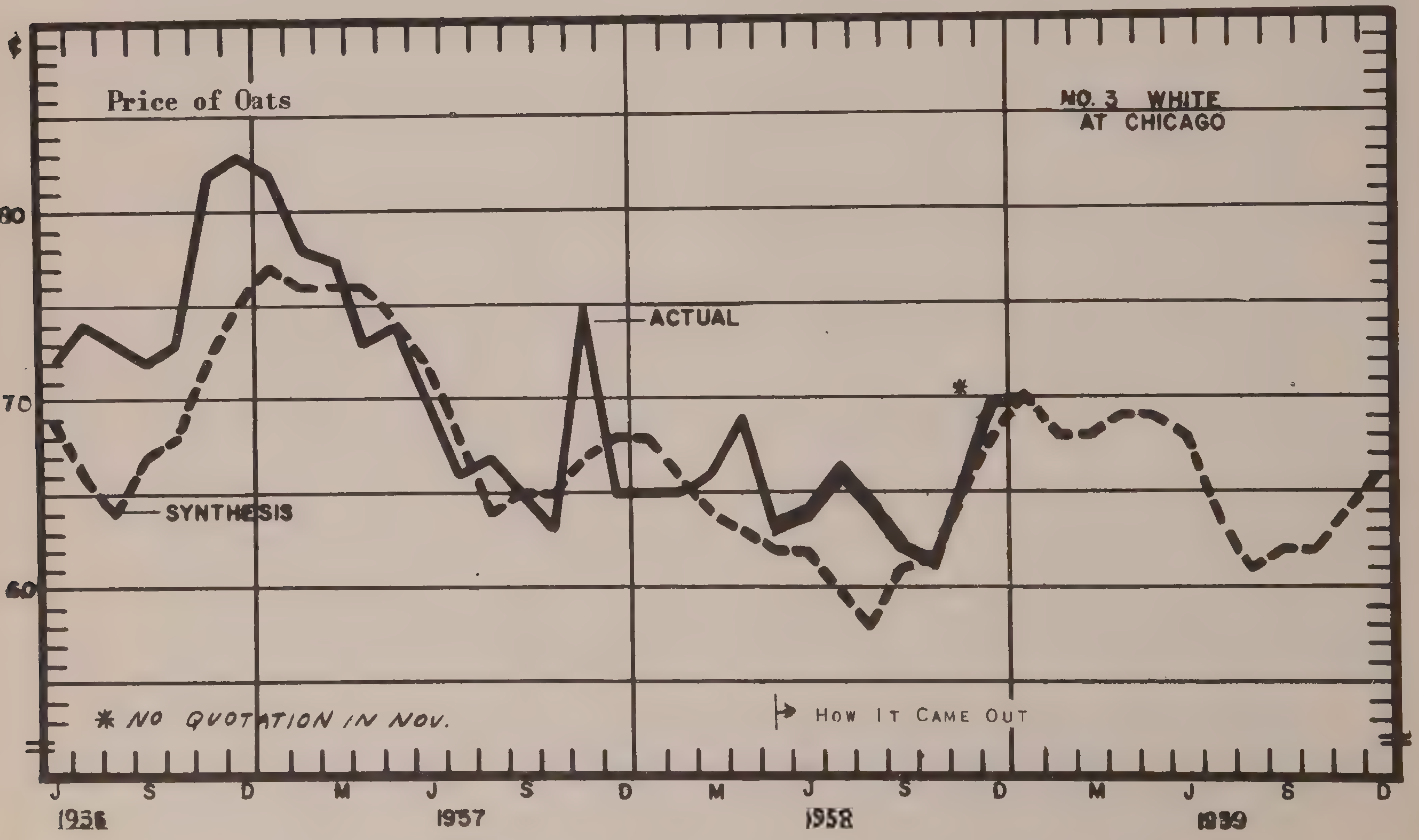
The whole subject is fascinating, and I am inclined to believe it is close to the basic law.

The Cycle Round-up

APRIL 1959

Series	Unit	Month	Amount
Automobile Factory Sales	Thousand cars	Dec Jan	609 r 546 p
Bond Yields—Moody's All Groups	Per cent	Jan Feb	4.41 r 4.44 p
Corn Prices—#3 yellow, Chicago	Cents per bushel	Jan	117.1 r
Liabilities of Business Failures	Millions dollars	Jan	73.5
Oats Prices—	Cents per bushel	Jan	69.9
Residential Building Contracts	Million dollars	Dec	981
Sunspot Numbers	Numbers	Jan	210
Unemployment	Per Cent	Jan	7.01
Wheat Prices	Cents per bushel	Jan	220.5

p - preliminary r - revised



The Price of Oats. Actual Prices vs the Combination of Cycles and Trend.

COPPER PRICES

In the third quarter of 1956 the price of copper (electrolytic bars at New York) collapsed. In the following two years of steep and very steady decline, the price of copper was cut almost in half.

Our cycle analysis of copper prices includes five cycles, which, when combined, were also going down during the first year of the decline in the actual price.

However, the decline in the synthesis of copper price cycles had an ideal low in the second quarter of 1957, and then turned up for a slight rise which continued into 1958. During this time the actual price of copper continued its precipitous slide.

Obviously, factors which are random to cycle analysis, but not to copper prices, overpowered the cycles and kept pushing the price lower and lower.

Such random factors could be exceedingly large stocks coupled with exceptionally low deliveries.

Copper prices respond strongly to stimuli causing changes in level, and declines of 50% are not unheard of. Declines of 50% or over occurred after 1814, 1864, 1916, and 1929.

Nor is it unusual for a wild move, once underway, to continue of its own momentum, regardless of the cycles which had operated previously, and will operate again in the future.

Perhaps one hint we could use (if we are attempting to use cycles as part of a forecasting system) is that when a turn in direction, even if called for by a cycle synthesis, develops unusual velocity, we can look for the cycles to be temporarily overwhelmed. Even if the cycles are real and significant.

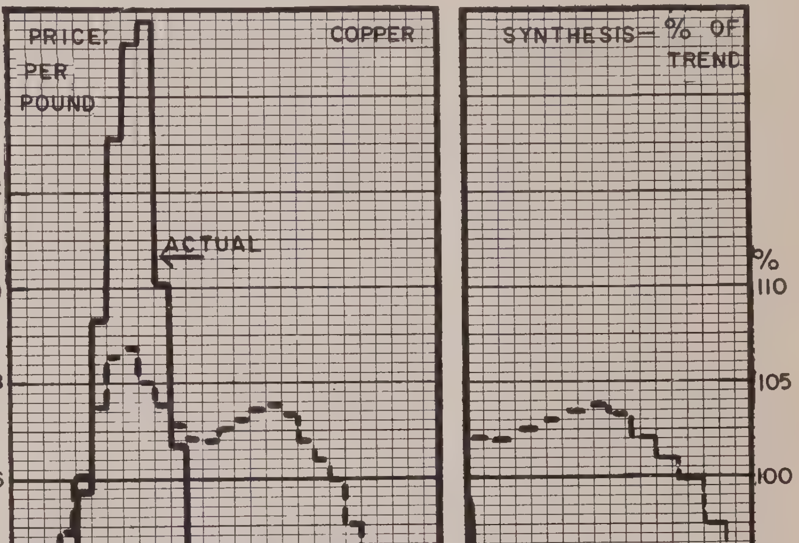
In this case the bottom was delayed four quarters. The next following top has been delayed by two quarters so far.

If the five cycles we have included in the synthesis are real and continue the question becomes one of how soon the two lines will be moving together again.

The analysis covered the period 1784—1954 and of course we would not have included the particular cycles we did had they not been present with reasonable consistency over that long period. The presence of the cycles over a 170 year period leads to the assumption that they will continue to operate, and that the current disturbance is temporary.

The next scheduled check point on the cycle synthesis is the low in the third quarter of 1960.

The price of electrolytic copper bars at New York during the month of January was 28.64 cents per pound.



STOCK PRICES

Our combination of 11 cycles (together with the underlying trend) is currently going down. The combination continues down to a low due ideally at 1960.

The current picture of this combination of cycles and trend is given on the chart on the opposite page by means of a broken line. It is compared with the actual course of the market since 1943 (the solid line).

CURRENT COMPARISON

Although the work was based on annual averages, actual monthly figures beginning with 1956 are also shown on the chart. The figures used in the analysis and plotted on the chart are Standard and Poor's Index of Combined Stock Prices.

The latest daily figures of this Index can be found on the financial pages of most metropolitan newspapers. Recent monthly figures are:

1959 - Dec	53.49
Jan	55.62

In comparing the line of actual stock prices with the combination of cycles on the small chart, bear in mind that all the cycles used in the combination are over four years long. Because of this fact you cannot expect to pinpoint turning points at the exact year. Turning points in some cases may be determined by shorter cycles which are not included here.

As you can see on the small chart, some divergence has developed between the actual line and the combination line. Some divergence is to be expected from time to time, just as it is to be expected that the two lines will converge again.

LONG TERM COMPARISON

Although it is smart to keep track by the use of monthly figures of just how well the cycles are currently continuing to operate, what matters in the long run is how well the contours of the two lines match over a considerable period of time.

The long chart across the bottom of the page illustrates the comparison between the two lines since 1871.

Here again the combination of cycles is shown by the broken line, and the actual figures are given by means of the solid line. On this chart, the underlying trend of the figures has been reduced to a horizontal line at 100%.

Although the combination prior to 1944 is hindsight, it should be kept in mind that the combination since 1944 is almost entirely foresight.

The turning points of the "ideal" line are marked with letters. If one had bought and sold in both directions according to the timing of the letters on the chart, the average profit per year since 1871 would have been about 14.5%.

According to this analysis, which is (very roughly) just an averaging of past behavior, a turn to a general downward direction in the market is overdue.

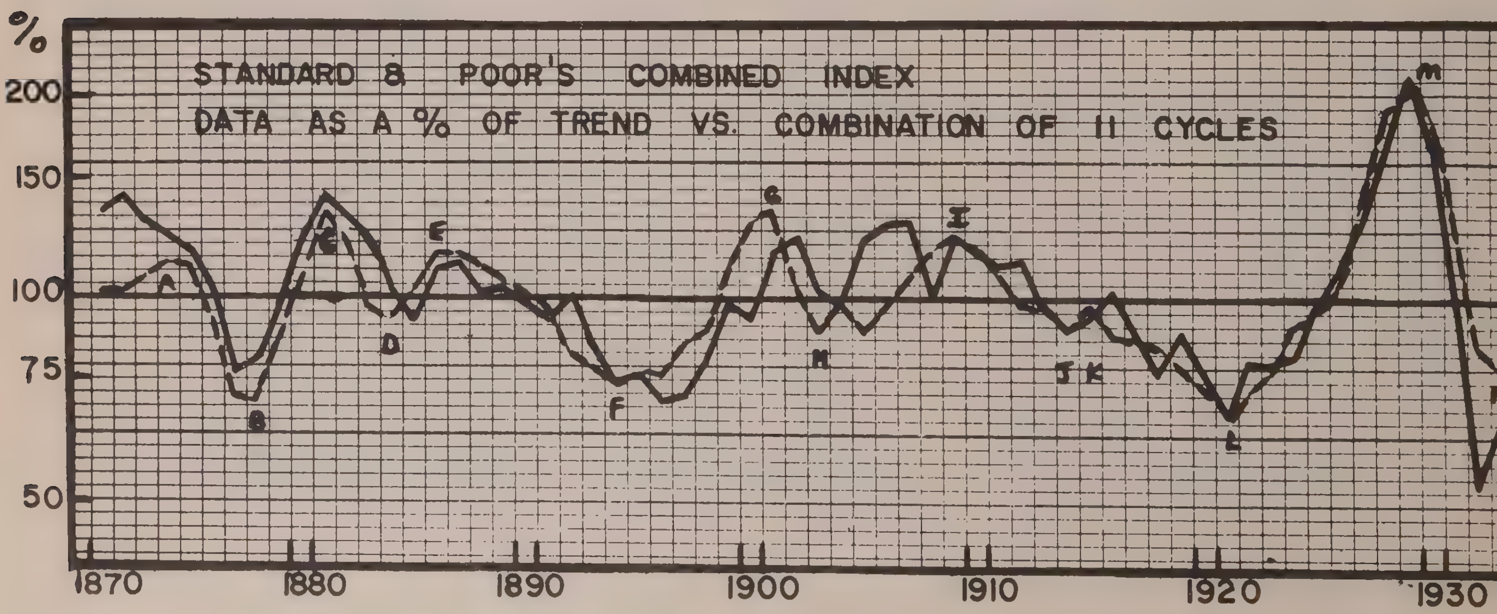
CONCLUSION

A study of this sort cannot tell you on what day to buy or sell any particular stock. But it does tell you that to be on the long side of the market right now in the speculative expectation of continued large advances is fraught with some danger.

This conclusion is based on a number of assumptions. The most important assumption is that the 11 cycles we have included here are real and will continue. This assumption in turn means that the basic character of the market has not changed, and that speculation remains speculation.

APPLICATION

If one is behaving in a manner contrary to the course indicated by this analysis, at



least one should act with the full knowledge that one is operating against the experience of the past, as measured by this work.

If you have sound and valid reasons for a particular action, as for instance, purchasing some particular issue at this point, that is fine. But at the same time, remember the broken line on the chart.

The combined cycles that have been present in the past are currently going down. The odds, based on the experience since 1871, are that the actual line will sooner or later be in step with the combined cycles.

This discussion is more about the application of the knowledge of a particular cycle, or set of cycles, than about the cycles themselves. But we receive many letters which indicate a gap in understanding at this point.

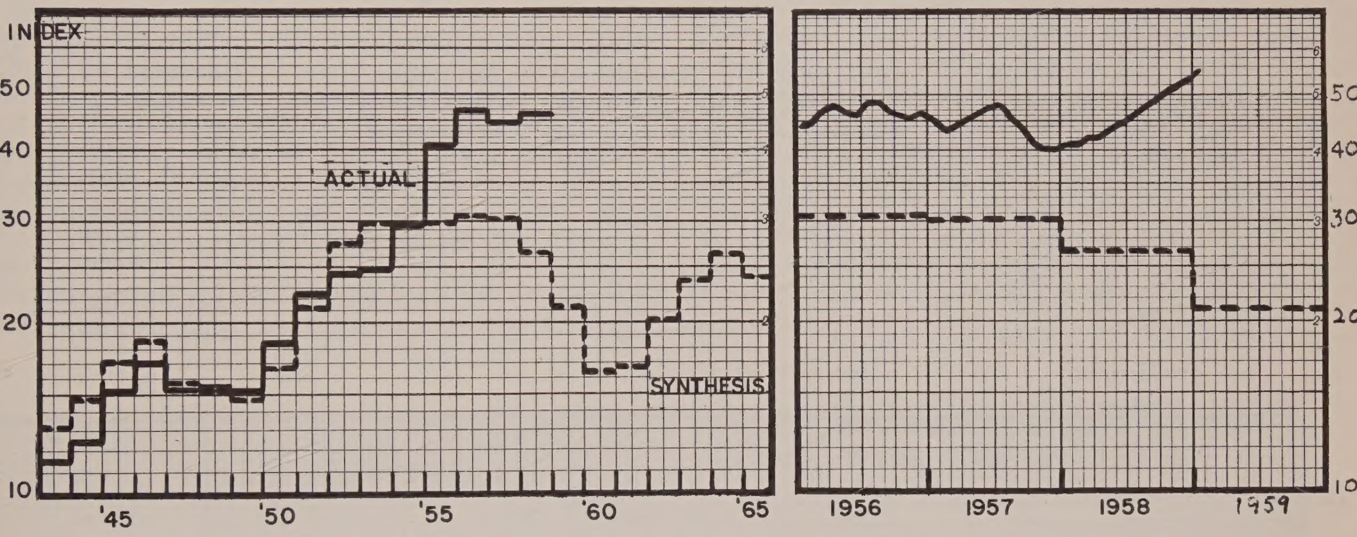
Actually, we are not trying to forecast the market. It just turns out that in 1944 the Foundation isolated a series of cycles which explained, within limitations which are plain on the chart, the past behavior of the market.

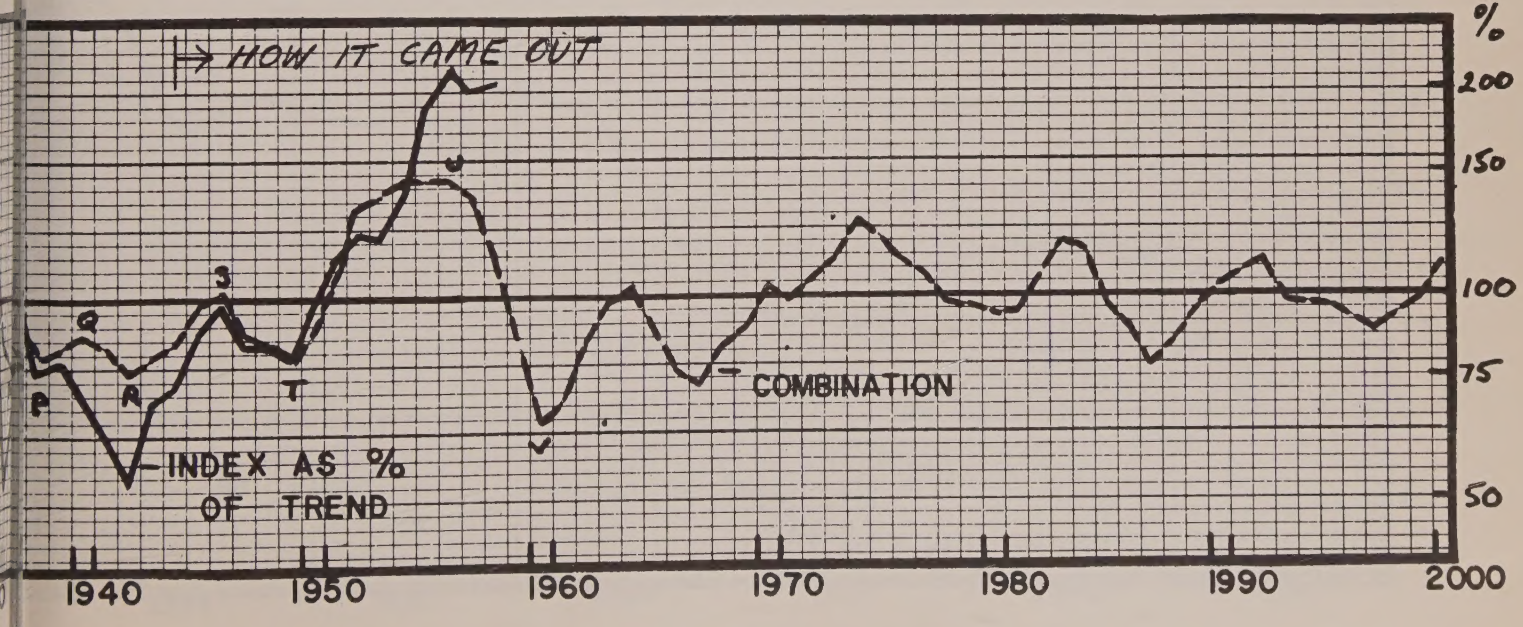
Except for the current inflation, the cycles also explain the market since 1944.

We think that this is valuable information, if it is used as *background*. The barometer reading is only part of the information that goes into a weather forecast, but who would forecast the weather without a barometer?

One of the reasons why we stress methods is that if you understand how we have gone about getting our results you will almost automatically understand the implications and limitations of those results.

Personally, I do not want to see the stock market go down. At least, not to the extent shown by the cycle projection. But it is folly to disregard the barometer completely just because one does not like the reading.





The Geisinger Indicator

FORECAST

The Federal Reserve Board's Index of Industrial Production went up again in January to 143. This figure is the Index after the adjustment for change due to seasonal factors.

The *rate* of increase, as measured by the First Difference Indicator moved sideways again from November to December, with the December value at +1.67.

The *rate* of the increase in the Production Index has thus been almost level for four months in a row. The First Difference Indicator seems to be just hanging there, waiting, before continuing down or turning up again.

The Geisinger Indicator went down again in October (June 1959 when advanced) to +2.8. The drop was slight, however, and amounts to a sideways move. This Indicator also appears to be hesitating in its decline.

The Modified Geisinger Indicator, which is the sum of the First Difference and the Geisinger Indicators, also moved slightly downward in October (June 1959 when advanced) to +4.30.

Thus there is hesitation in the declines which started recently in all the indicators. This pause creates a neutral situation, as compared to a definite move which it is possible to interpret more definitely.

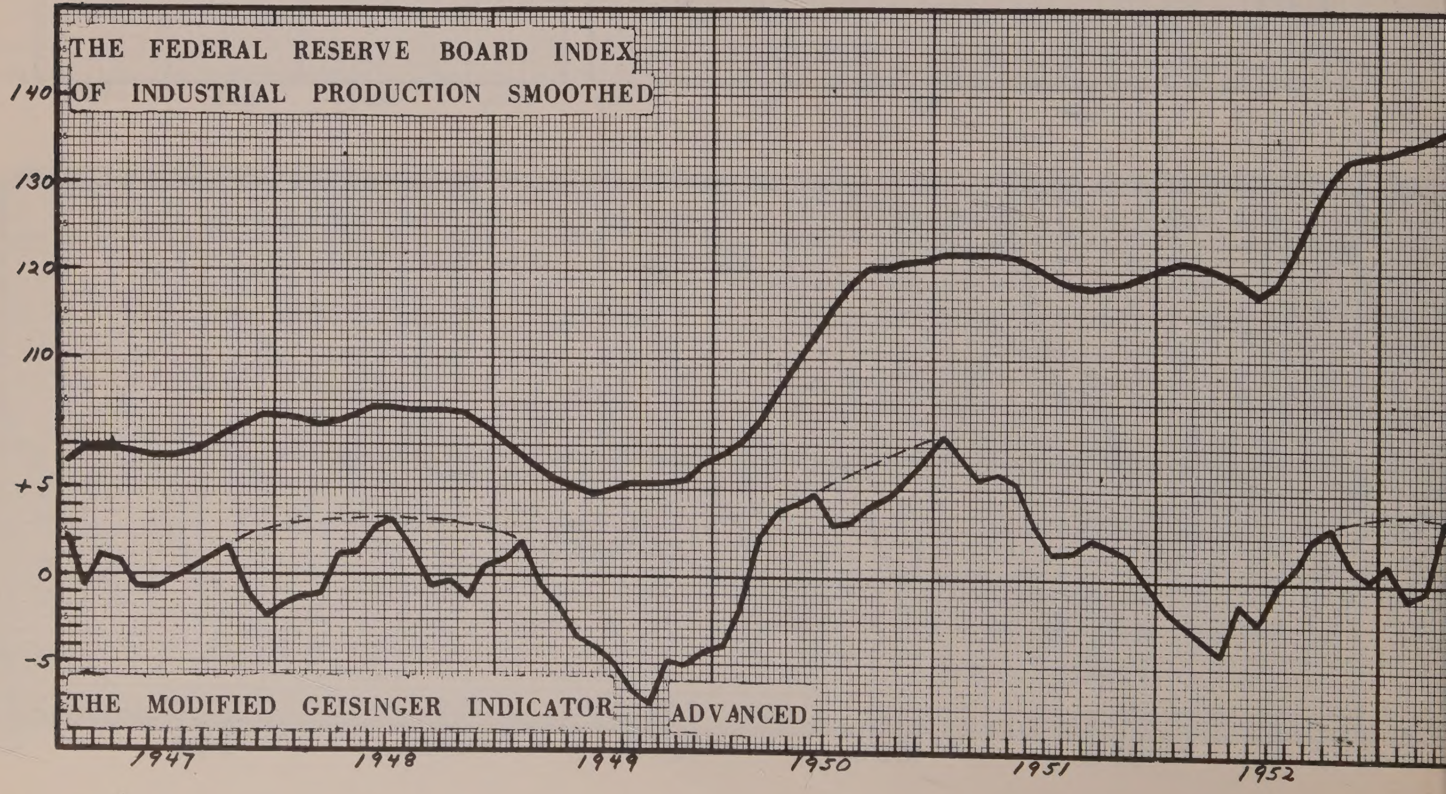
The fact that the Indicators have turned introduces a note of *caution*, as in 1947 and 1948 and 1952. There is no *warning*, however, until the Geisinger Indicator gets down to -2.0.

Remember that these Indicators refer to the physical production of things--not to stocks

February 26, 1959 *E. R. Dewey*

Month	1 F.R.B. Index	2 Geisinger Indicator	3 First Difference Indicator	4 Modified Geisinger Indicator	Timing Advanced 8 Months
July 1958	134	+4.6	+2.67	+7.27	Mar. 1959
Aug.	136	+5.2	+2.17	+7.37	Apr. 1959
Sep.	137	+3.0	+1.50	+4.50	May 1959
Oct.	138	+2.8	+1.50	+4.30	June 1959
Nov.	141	*	+1.66	*	July 1959
Dec.	142	*	+1.67 p	*	Aug. 1959
Jan. 1959	143 p	*	*	*	Sep. 1959

p - preliminary * - not yet available



BACKGROUND

Explanation

The Modified Geisinger Indicator is a series of numbers which, in the past, have usually gone up and down ahead of corresponding movements of the Federal Reserve Board Index of Industrial Production. The Modified Geisinger Indicator thus throws some light on the probabilities of the future.

The Modified Geisinger Indicator is the sum of two Indicators, the Geisinger Indicator and The First Difference Indicator.

The Geisinger Indicator was invented by Robert Geisinger. It is derived from figures which are published each month in the *Survey of Current Business.* (See Col. 2 of the table.)

The First Difference Indicator, is merely the amount by which the smoothed F. R. B. Index is above or below the value for the preceding month. It registers the *rate* of advance or decline. It has some forecasting value, too. (See Col. 3 of the table.)

The sum of these two Indicators makes the *Modified* Geisinger Indicator. See Col. 4 of the Table. It is advanced by eight months and plotted as the bottom line of the chart.

The F. R. B. Index of Industrial Production measures physical production in the U. S. A. It is a weighted average of tons, yards, gallons, and numbers of things produced each month. See (Col. 1 of the Table.)

The smoothed values of the F. R. B. Index of Industrial Production are plotted below as the top line on the chart. The smoothing is effected by means of a centered 3-month moving average posted to the second position. The latest actual monthly Index of Production is recorded by a dot.

Industrial Production has *nothing* to do with stocks.

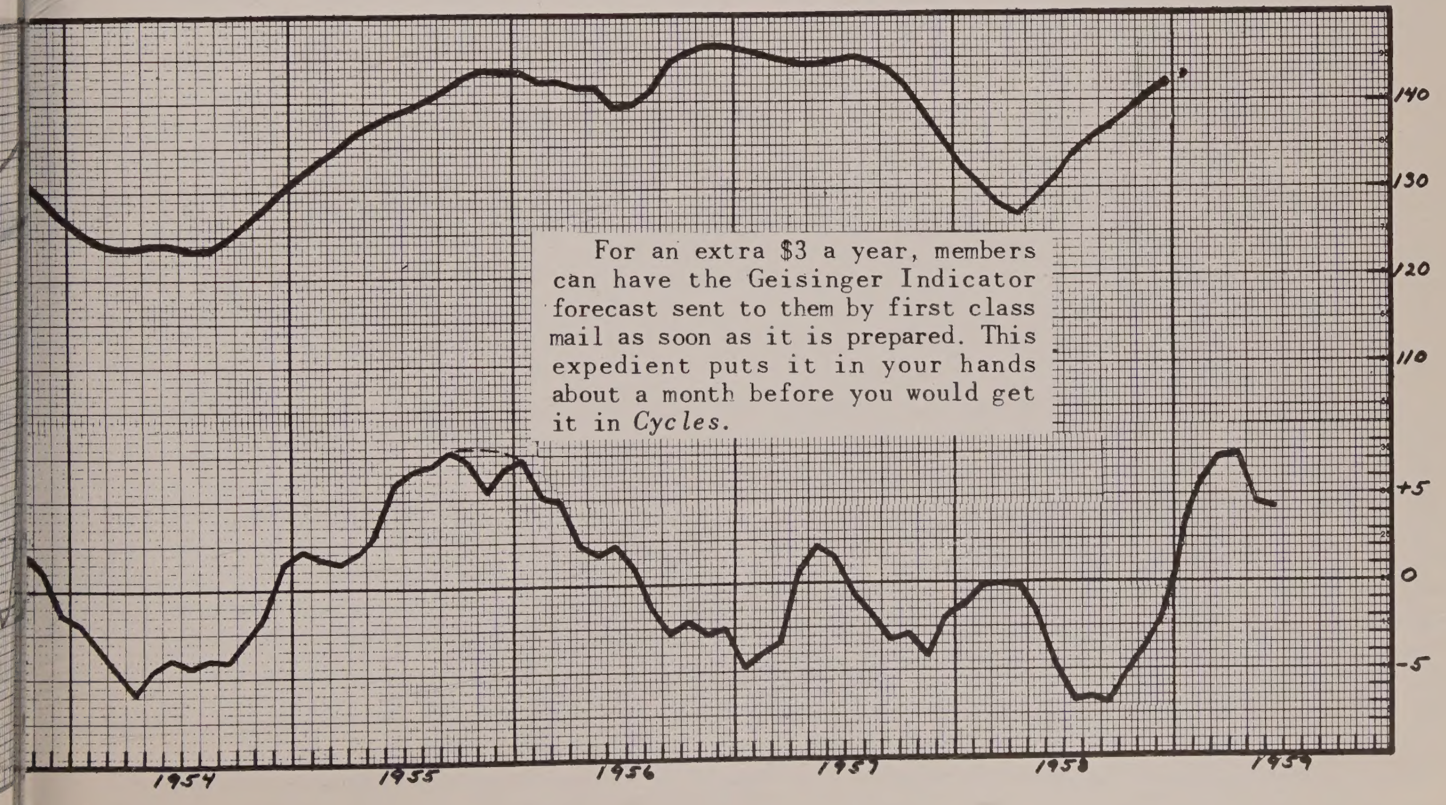
Interpretation

In the past, when the *Geisinger* Indicator (Col. 2), going up, has cut +2, good business has followed; when, going down, it has cut -2, bad business has followed.

The important *turns* of the *Geisinger* Indicator (Col. 2) and the *Modified* Geisinger Indicator (Col. 4) often come about 8 or 9 months before the corresponding turns of the Index of Industrial Production. This fact gives some idea of what is around the corner. To help you to grope your way into tomorrow the Modified Geisinger Indicator is advanced 8 months. Where *it* is now, Industrial Production may soon be.

The degree to which the two curves (Industrial Production and the Modified Geisinger Indicator advanced by 8 months) correspond can be seen by inspection of the chart.

The correspondence between the two lines on the chart is general rather than specific. It is not to be expected that every little wiggle in the Modified Geisinger Indicator is significant. It is rather the broad sweep of the line which is to be watched. The dashed lines which are added show the manner in which the eye should follow the Indicator.



For an extra $3 a year, members can have the Geisinger Indicator forecast sent to them by first class mail as soon as it is prepared. This expedient puts it in your hands about a month before you would get it in *Cycles.*

H A MUSHAM
741 N RUSH ST
CHICAGO, ILL

DIRECTOR'S LETTER --CONTINUED

Dear Member:

You will find that many of the old issues of CYCLES are as good or better than the ones you are receiving currently.

Many of the old issues are becoming collector's items.

In fact we have only two complete sets of Volume I (1950, 5 issues), and Volume 3 (1952, 10 issues). They are priced at $15 a set (bound, $4 extra).

We have several complete sets of all the other years. They sell for $5.50 per set (bound, $9.50).

If you will accept substitutions for the one or two issues of each year that are scarce, you may have the back reports for 1951 through 1958 at $3.50 per set of 10 (or 11 or 12 for the later years). How is that for a bargain?

Send your order and check to the Foundation for the Study of Cycles, 680 West End Avenue, New York 25, New York.

Very cordially yours,

Edward R. Dewey

Director